

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A switching device comprising:
a plurality of ports to transmit data to and receive data from external sources, wherein the ports operate at asymmetric speeds;
a switching matrix to provide selective connectivity between the ports; and
a plurality of channels to connect the ports to the switching matrix, wherein number of channels associated with each port is determined by speed of the port.

2. (Original) The device of claim 1, further comprising a scheduler to select connectivity between the ports and to configure the switching matrix accordingly.

3. (Original) The device of claim 2, wherein said scheduler configures said switching matrix to connect the channels associated with an incoming port to the channels associate with a corresponding outgoing port.

4. (Original) The device of claim 2, wherein said scheduler connects all the channels associated with a first port to a subset of the channels associated with a second port, if the first port is operating at a lower speed than the second port.

5. (Original) The device of claim 1, wherein data is transferred between an incoming port and a corresponding outgoing port at speed of the slower of the incoming port and the corresponding outgoing port.

6. (Original) The device of claim 5, wherein number of channels connected together to transfer data between the incoming port and the corresponding outgoing port is number of channels associated with the slower of the incoming port and the corresponding outgoing port.

7. (Original) The device of claim 2, wherein

at least some subset of the plurality of ports send requests to said scheduler; and said scheduler performs attribution of the requests to select connectivity.

8. (Original) The device of claim 2, wherein said scheduler configures said switching matrix to connect inactive incoming ports to inactive outgoing ports.

9. (Original) The device of claim 2, wherein said scheduler configures said switching matrix to connect inactive incoming channels to inactive outgoing channels.

10. (Original) The device of claim 2, wherein said scheduler determines logical port connections and translates them to physical port locations.

11. (Original) The device of claim 2, wherein said scheduler includes a request processor to process requests for permission to transmit data received from at least some subset of the sources;
a schedule engine to determine requests to be accepted;
a grant generator to generate grants for the sources that had requests accepted; and
a configurator to instruct switching matrix to connect channels associated with a source to channels associated with a destination based on the grants.

12. (Currently Amended) A method comprising:
selecting connection paths between a plurality of ports, wherein the ports are capable of operating at different speeds from one another, wherein the ports operate at asymmetric speeds and are connected to a switching matrix via a plurality of channels, and wherein number of channels associated with a each port is determined by speed of the port; and
configuring the switch matrix, in response to said selecting, to connect the channels associated with an incoming port to the channels associate with a corresponding outgoing port.

13. (Original) The method of claim 12, further comprising receiving a plurality of requests for permission to transmit data from an incoming port to an outgoing port, wherein said selecting is based at least in part on the plurality of requests received.

14. (Original) The method of claim 13, further comprising performing attribution of the requests.

15. (Original) The method of claim 14, further comprising granting permission to transmit data from incoming ports to corresponding outgoing ports.

16. (Original) The method of claim 12, further comprising transmitting data from incoming ports to corresponding outgoing ports via the switch matrix.

17. (Original) The method of claim 16, wherein said transmitting includes transmitting the data from an incoming port to a corresponding outgoing port at speed of the slower of the incoming port and the corresponding outgoing port.

18. (Original) The method of claim 12, wherein said configuring includes connecting all the channels associated with a first port to a subset of the channels associated with a second port, if the first port is operating at a lower speed than the second port.

19. (Original) The method of claim 12, wherein said configuring includes connecting inactive incoming ports to inactive outgoing ports.

20. (Original) The method of claim 12, wherein said configuring includes connecting inactive incoming channels to inactive outgoing channels.

21. (Original) The method of claim 12, wherein said selecting includes selecting logical input port to output port connections and translating the logical ports to physical ports.

22. (Currently Amended) A store and forward device comprising:
- a plurality of Ethernet cards to receive data from and transmit data to external sources, wherein a first one of the plurality of Ethernet cards is capable of operating at a first speed and a second one of the plurality of Ethernet cards is capable of operating at a second speed that is different than the first speed operate at asymmetric speeds;
- a switching matrix to provide selective connectivity between the Ethernet cards;
- a backplane consisting of a plurality of channels to connect the plurality of Ethernet cards to the switching matrix, wherein number of channels associated with an each Ethernet card is based on speed of the Ethernet card; and
- a scheduler to select connectivity between Ethernet cards and to configure the switching matrix accordingly.
23. (Original) The device of claim 22, wherein said scheduler configures said switching matrix to connect the channels associated with an incoming Ethernet card to the channels associate with a corresponding outgoing Ethernet card.
24. (Original) The device of claim 22, wherein said scheduler connects all the channels associated with a first Ethernet card to a subset of the channels associated with a second Ethernet card, if the first Ethernet card is operating at a lower speed than the second Ethernet card.
25. (Original) The device of claim 22, wherein at least some subset of the plurality of Ethernet card send requests to said scheduler; and said scheduler performs attribution of the requests to select connectivity.
26. (Original) The device of claim 22, wherein said scheduler configures said switching matrix to connect inactive incoming Ethernet card to inactive outgoing Ethernet card.
27. (Original) The device of claim 22, wherein said scheduler configures said switching matrix to connect inactive incoming channels to inactive outgoing channels.

28. (Original) The device of claim 22, wherein said scheduler determines logical Ethernet card connections and translates them to physical Ethernet card connections.

29. (Original) The device of claim 22, wherein said scheduler includes a request processor to process requests for permission to transmit data received from at least some subset of the interface modules; a schedule engine to determine requests to be accepted; a grant generator to generate grants for the interface modules that had requests accepted; and

a configurator to instruct switching matrix to connect channels associated with an ingress interface module to channels associated with an egress interface module based on the grants.

30. (Original) The device of claim 22, wherein the backplane is electrical.